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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/659,241	09/11/2000	William Kopaciewicz	MCA-463	4651

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11/20/2002

EXAMINER

LUDLOW, JAN M

ART UNIT

PAPER NUMBER

1743

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16

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/659,241

Applicant(s)

KOPACIEWICZ ET AL.

Examiner

Jan M. Ludlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 31-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 31-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. Claims 1-24, 31-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

2. In the claims "self-retaining" is unclear. This term has been used in the specification, but not defined. Does "self-retaining" refer only to cast-in-place structures, or does it encompass the additional retention means found on page 10 of the instant disclosure? Is there a structural difference between a filter cast in place and one that is cut and inserted?

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

4. A person shall be entitled to a patent unless –

5. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

8. Determining the scope and contents of the prior art.

9. Ascertaining the differences between the prior art and the claims at issue.

10. Resolving the level of ordinary skill in the pertinent art.

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11. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-20, 22-24, 31-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Fernwood et al.

14. Fernwood teaches a device having sample reservoirs 12, collection reservoirs 20, filtration substrate 13, and spouts 41 all fixed together by screws 26 and latches 30. **The substrate 13 can be the same size as shown, but be a non-porous sheet with porous circular regions corresponding to reservoirs 12 (col. 3, lines 25-30).** If the substrate is the same size as shown, then the filter portions are of the same thickness as the rest of the sheet. The filter regions can be adsorbents (col. 1, line 26) and exemplary filters are Teflon or Teflon with diatomaceous earth bound thereto (col. 5, line 66, col. 6, line 54). It is the examiner's position that adsorbent filters are inherently "functionalized" to be adsorbent. It is the examiner's position that the diatomaceous earth particles are entrapped in the porous matrix because they are bound. As shown in figure 4, the aspect ratio of the porous circular region would be 10 based on the 30

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mm diameter of the well by the 3 mm thickness of the filter shown. With respect to "self-retaining" in that Fernwood teaches that the porous regions are "contained" in the non-porous sheet, it is the examiner's position that they do not fall out. The surfaces of the non-porous sheet surrounding the porous portions constitute the instant solid walls.

15. Alternatively, claims 1-20, 22-24, 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernwood et al.

16. The teachings of Fernwood are given above.

17. Fernwood fails to explicitly teach that the porous regions are limited by the thickness of the substrate (housing) or the aspect ratio.

18. It would have been obvious to make the filter regions the same thickness as the non-porous sheet in order to make the alternative embodiment sheet 13 the same size as the sheet shown as taught by Fernwood. To the extent that the membranes taught by Fernwood are not inherently functionalized to be adsorbent, it would have been obvious to use functionalized adsorbent membranes in order to use known adsorbent membranes as taught. With respect to the aspect ratio claimed, it would have been obvious to make the filters of the relative width and thickness shown.

19. Alternatively, claims 2, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernwood as applied to claims 1, 9 above, and further in view of Foltz.

20. Fernwood fails to explicitly teach that the diatomaceous earth particles are "entrapped" in the filter matrix.

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21. Foltz teaches entrapment of adsorbent particles in filter matrixes to effect separation.

22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use filters with entrapped adsorptive particles in order to provide a known type of adsorptive filter as taught by Foltz.

23. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fernwood as applied to claims 17-19 above, and further in view of Bowers et al.

24. Fernwood fails to teach the sample reservoir and spout plate bonded to the filter substrate.

25. Bowers teaches a filtration system with sample reservoirs and an underdrain tray having spouts. The sample reservoirs are bonded to the underdrain tray with the filter 70 therebetween (col. 6, lines 1-11, Figure 10).

26. It would have been obvious to one of ordinary skill in the art at the time the invention was made to bond the drain, filter and sample reservoirs of Fernwood together in order to provide hermetic sealing as taught by Bowers, if one were willing to forego the advantages of reusing the reservoir and drain plate with a new filter medium.

27. Applicant's arguments filed September 24, 2002 have been fully considered but they are not persuasive.

28. With respect to "self-retaining" applicant still has not made clear on the record whether or not the additional "means" for retaining the filter recited on page 10, line 22 to page 11, line 5 are included in or precluded from the claim. For example, once a filter has been press-fit into a hole, it is "self-retaining" in that the "porous matrix is retained in

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the housing by itself" as stated in the response, but it is not self-retaining because it requires a "mechanical means" as recited on page 10, lines 24, 26 (namely press fitting), making it not "self-retaining" in accordance with the response because it requires the additional mechanical means of press fitting. Thus a press fit filter meets both the definition of "self-retaining" and "not self-retaining" as presented in the argument filed September 24, 2002 and the scope of the claims therefore remains unclear. Applicant has referred to page 10, lines 16-22 as exemplary, not limiting. Clarification is still required.

29. For clarification, the examiner recites the portion of Fernwood relied upon:

Fernwood teaches "a **NONPOROUS FILM OR SHEET** the same size as the membrane shown, but containing **POROUS** circular regions, one aligned with each of the apertures 12." [Emphasis added, please see column 3, lines 26-29.] Applicant argues that the figures of Fernwood are not explicitly recited as being drawn to scale, but it is the examiner's position that Figure 4 is, or closely approximates, an engineering drawing of the invention as shown by the precise nature of the representation, and it is therefore reasonable to use it for estimating the relative dimensions of the porous portion of the disclosed nonporous sheet or film. The reason the examiner has measured and relied upon the "pertinent" portion of the sheet or film (of the same size as the membrane) is because the "pertinent" portion corresponds to the **POROUS** portion below each well aperture, and the rest of the film or sheet is **NONPOROUS**. The instant claims require only an aspect ratio for the porous matrix structure; the claims do not require any particular aspect ratio for the instantly claimed housing or substrate, which correspond

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to the nonporous portion of the film or sheet of Fernwood. Applicant argues that the examiner has ignored the portion of the membrane surrounding the well apertures, but the examiner is not relying upon the embodiment with one porous membrane sheet, but rather on the embodiment with a nonporous sheet containing porous circular portions below each aperture 12. Applicant argues that Fernwood does not teach a housing with solid walls because the non-porous sheet does not define well 12. Well 12 corresponds, e.g., to the sample reservoir of claim 17 and has nothing to do with the housing or substrate in which the instant walls are found surrounding the porous matrix, except to indicate where the porous regions are located in the nonporous sheet. The portions of the nonporous film or sheet which surround the circular regions constitute the instant walls, which are solid by virtue of the teaching of a nonporous film or sheet, which inherently has a thickness, the wall inherently formed from the top of the sheet to the bottom of the sheet through the thickness of the sheet at the intersection of the nonporous region and the porous circular regions taught.

30. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jan M. Ludlow whose telephone number is (703) 308-4039. The examiner can normally be reached on Monday-Thursday, 11:30 am - 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (703) 308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jan M. Ludlow  
Primary Examiner  
Art Unit 1743

jml  
November 12, 2002